Fig.1A.

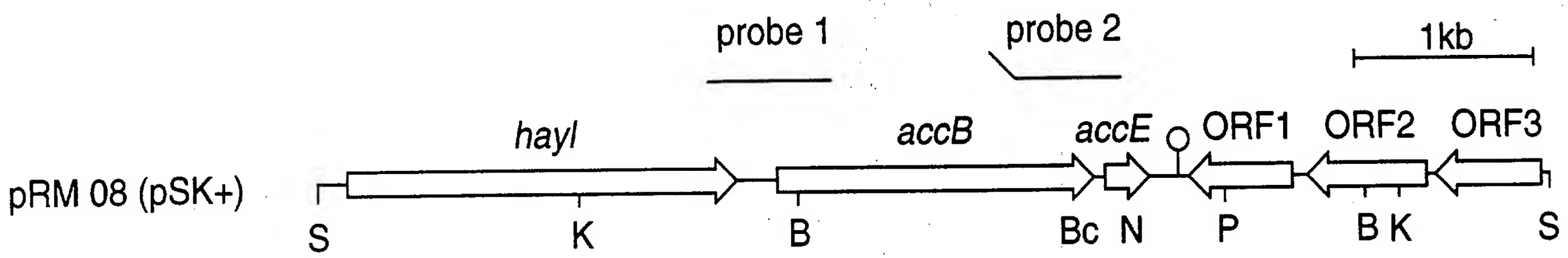

probe 1
probe 2
1kb
hayI
accB
accE
ORF1
ORF2
ORF3
pRM 08 (pSK+)
S
K
B
Bc
N
P
B
K
S

Fig.1B.

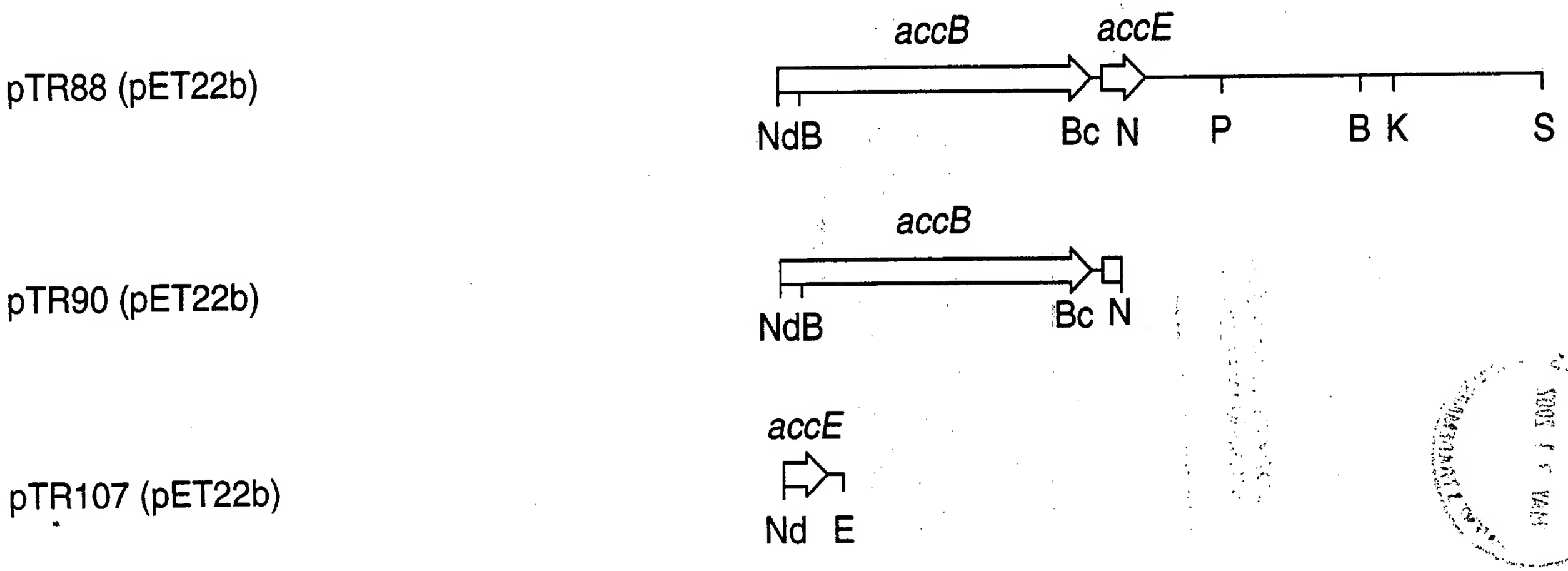
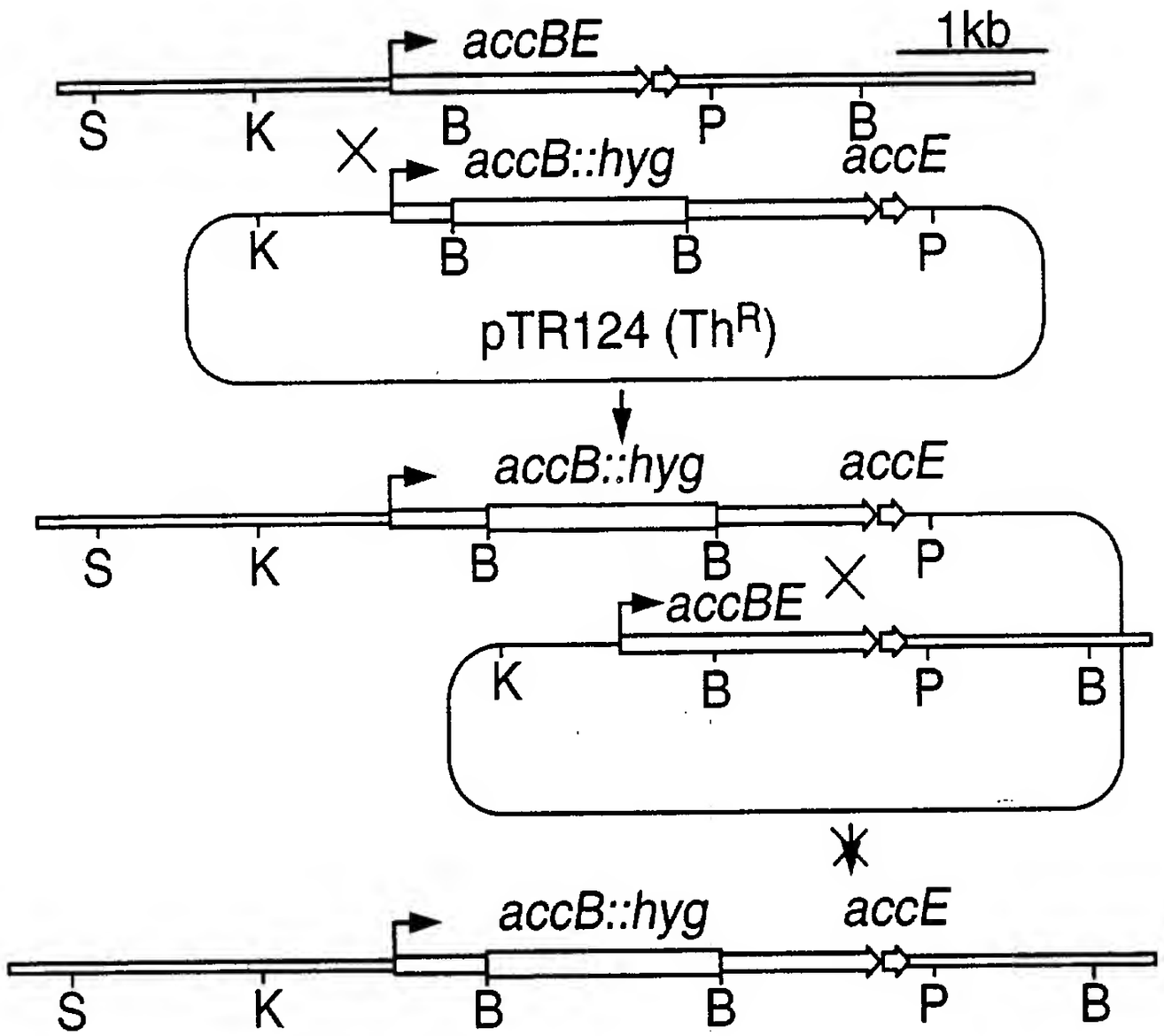

accB
accE
pTR88 (pET22b)
NdB
Bc
N
P
B
K
S
accB
pTR90 (pET22b)
NdB
Bc
N
accE
pTR107 (pET22b)
Nd
E

Fig.2A.

S.coelicolor M145

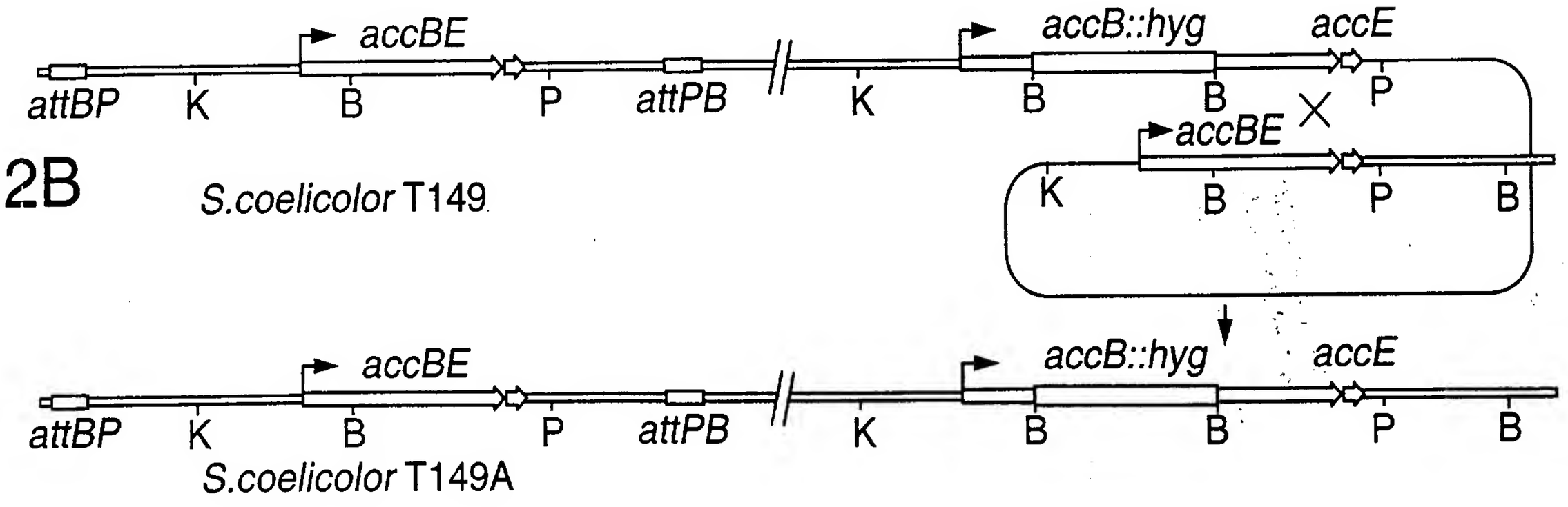
×

ET12567/pZU8002
pTR124



S.coelicolor T124

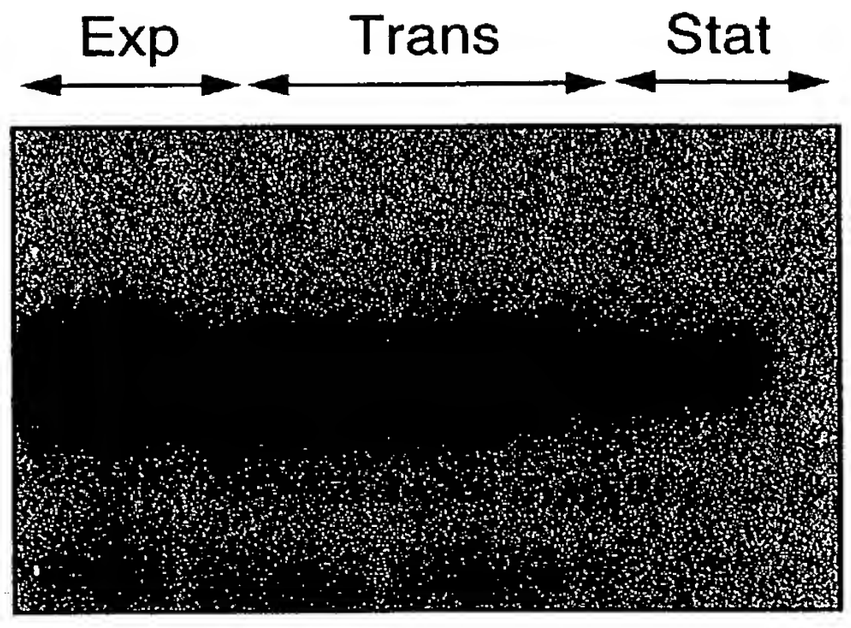
Fig.2B



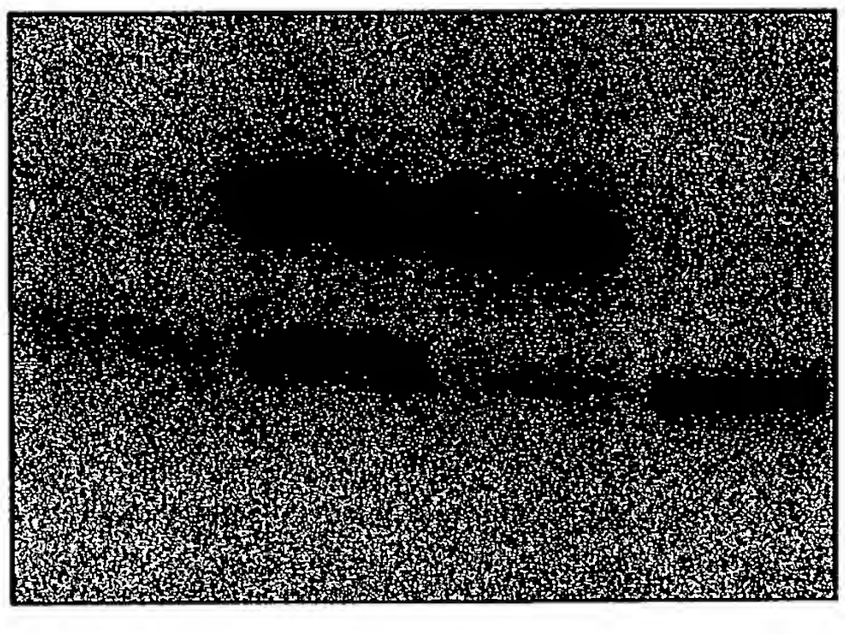
S.coelicolor T149

S.coelicolor T149A

Fig.3A.



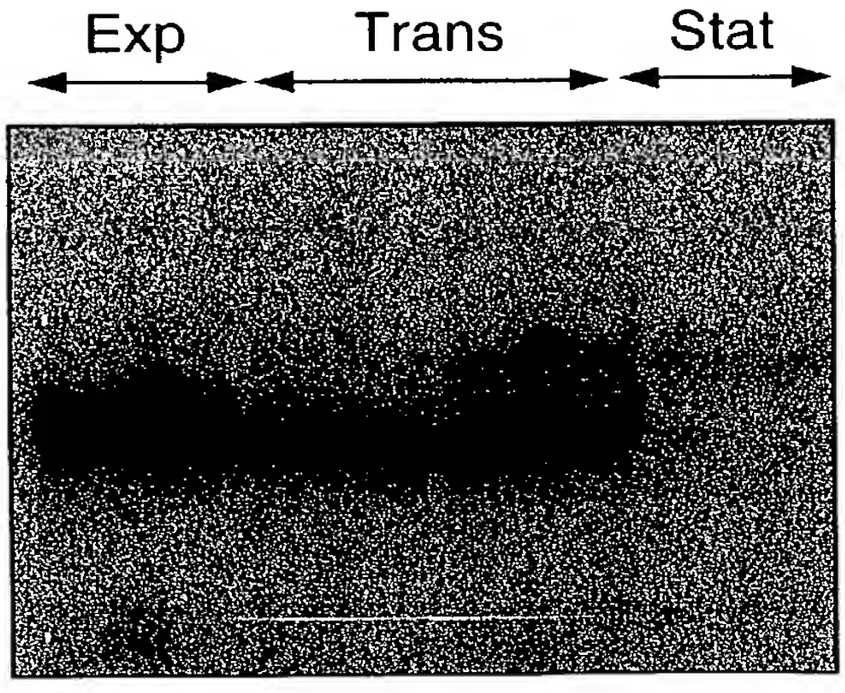
accBEp



actIIORF4p

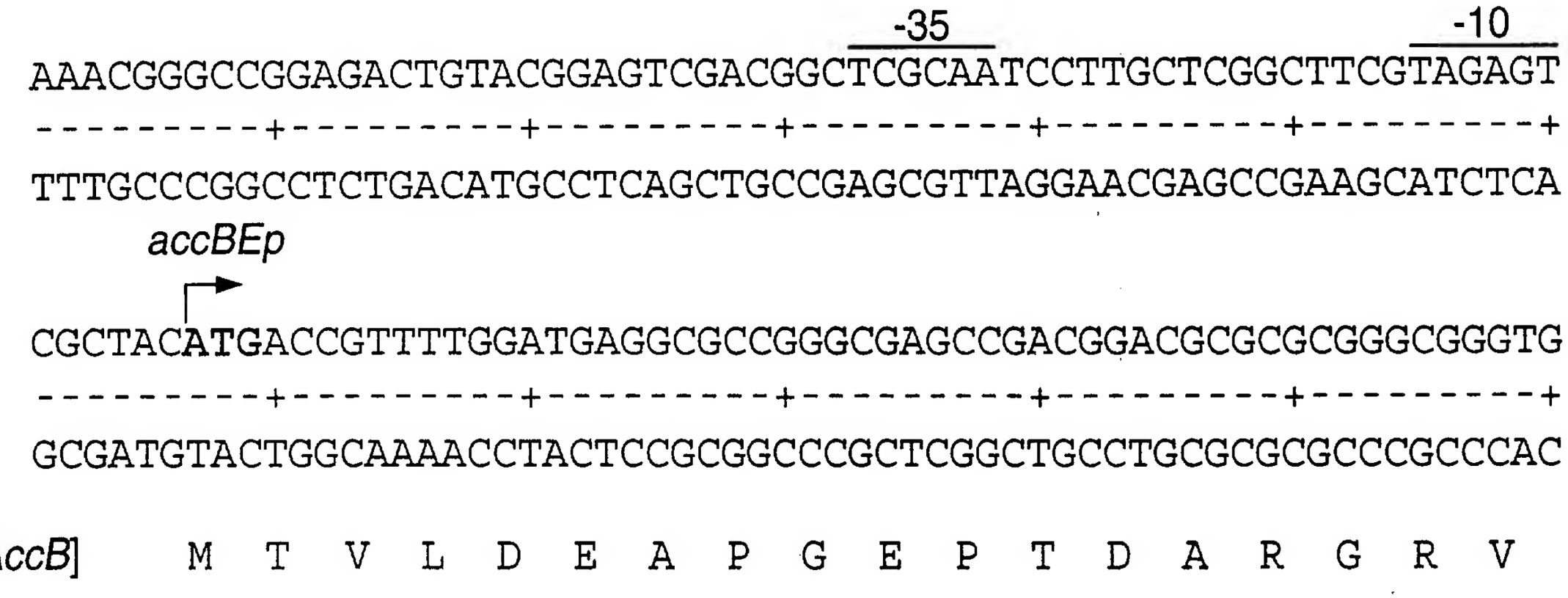
hrdBp

Fig.3C.



Probe
FLP

Fig.3B.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accBEp
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[AccB] M T V L D E A P G E P T D A R G R V

Fig.4A.

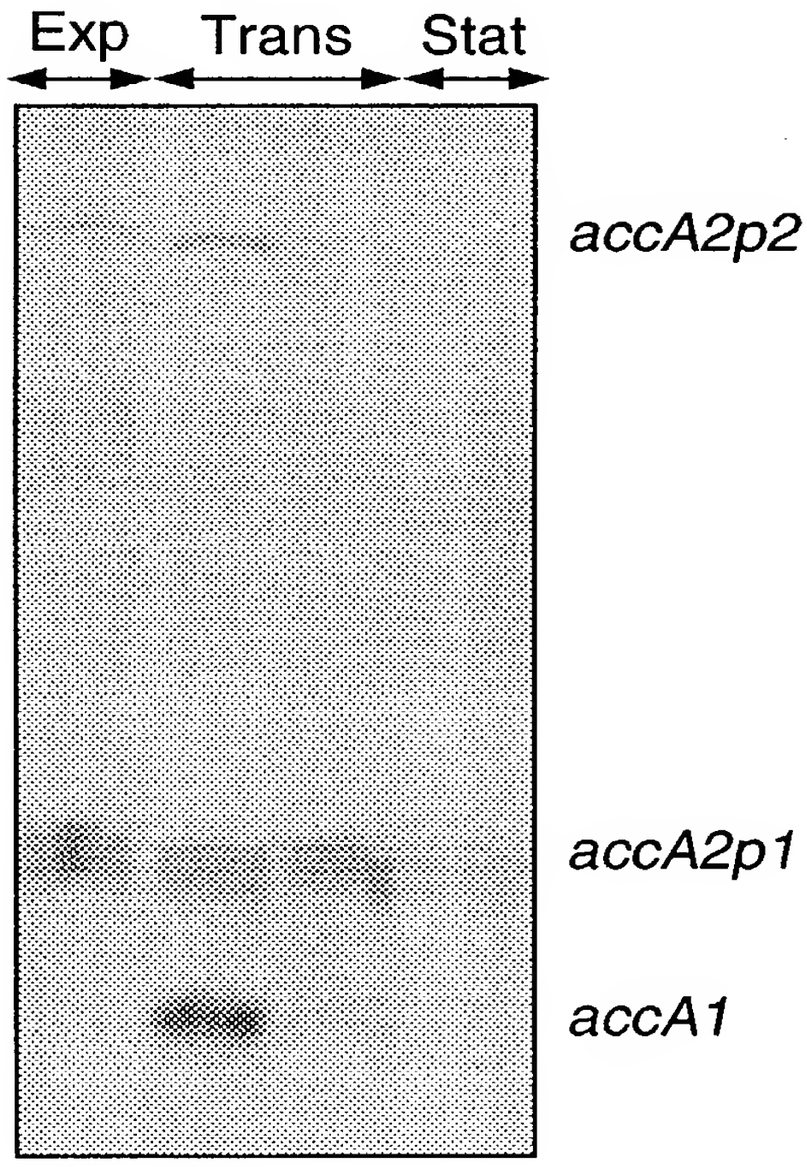
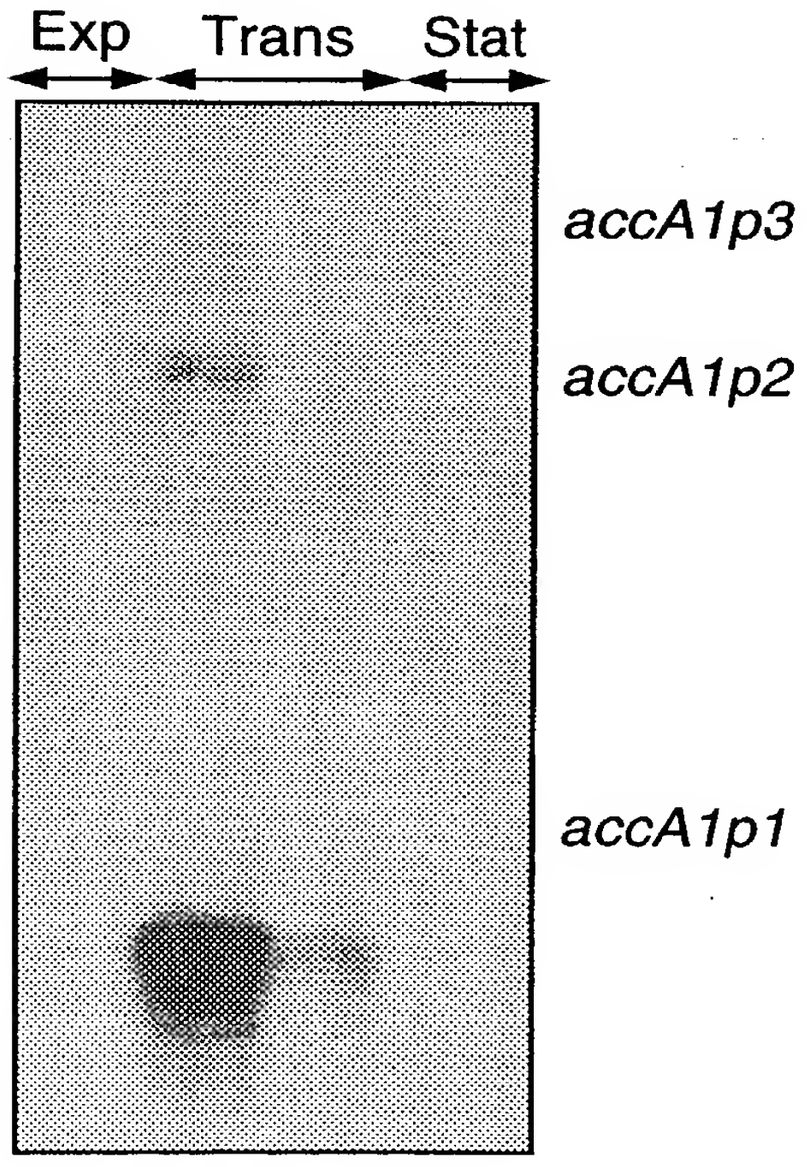

Exp
Trans
Stat
accA2p2
accA2p1
accA1

Fig.4B.


Exp
Trans
Stat
accA1p3
accA1p2
accA1p1

EV 100456242 US 10 DEC 2003

Fig.5A.

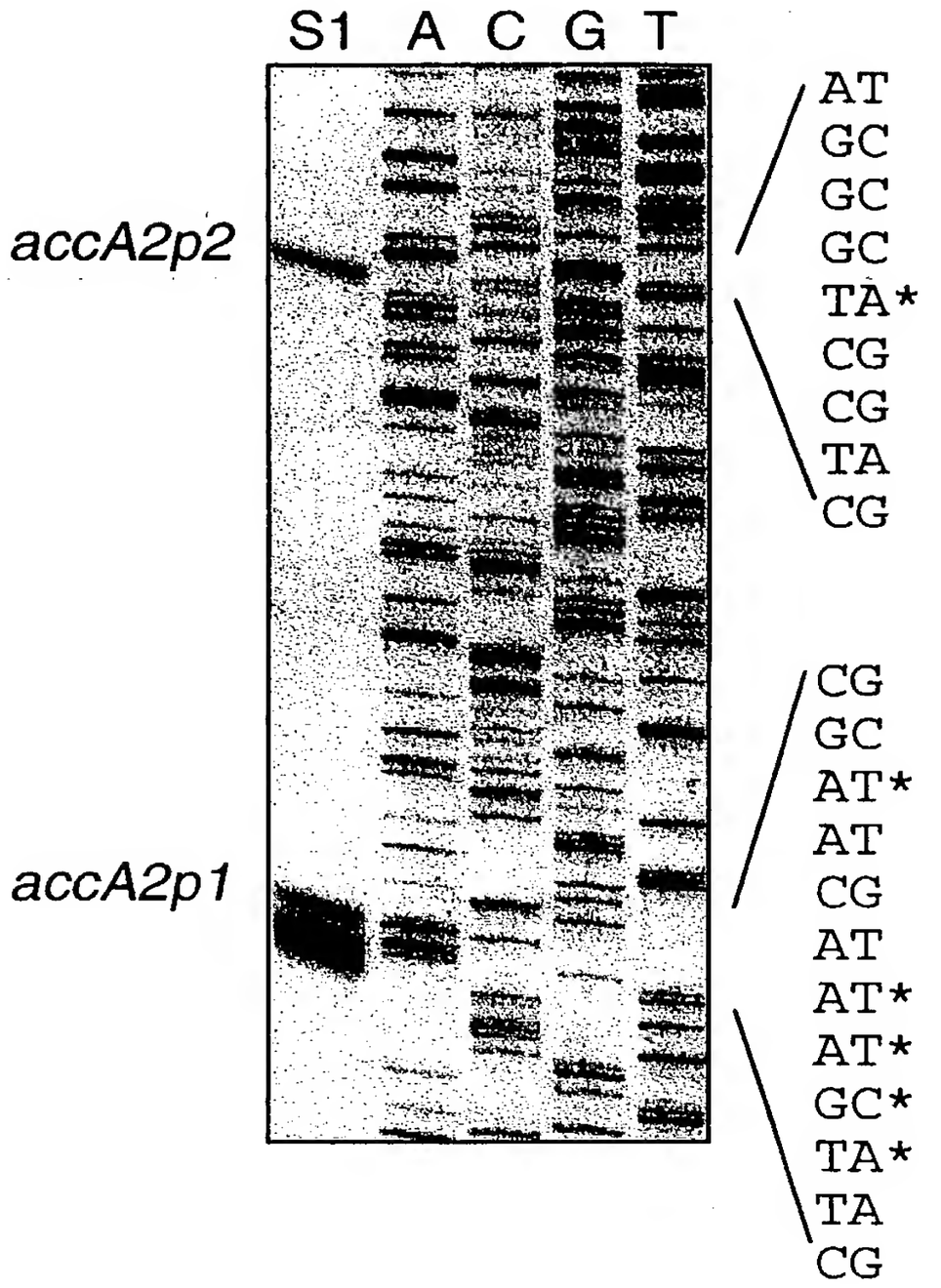


Fig.5B.

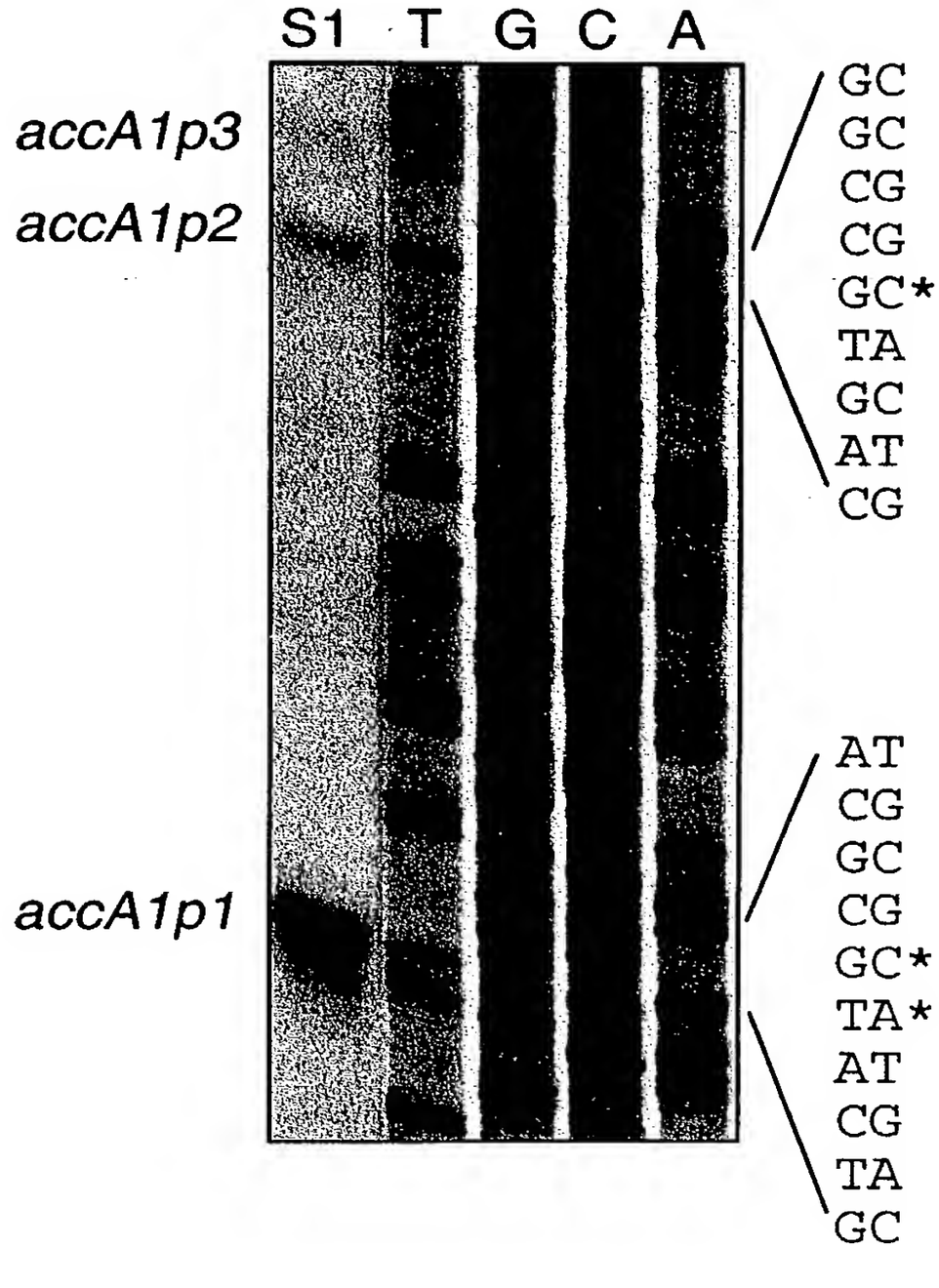
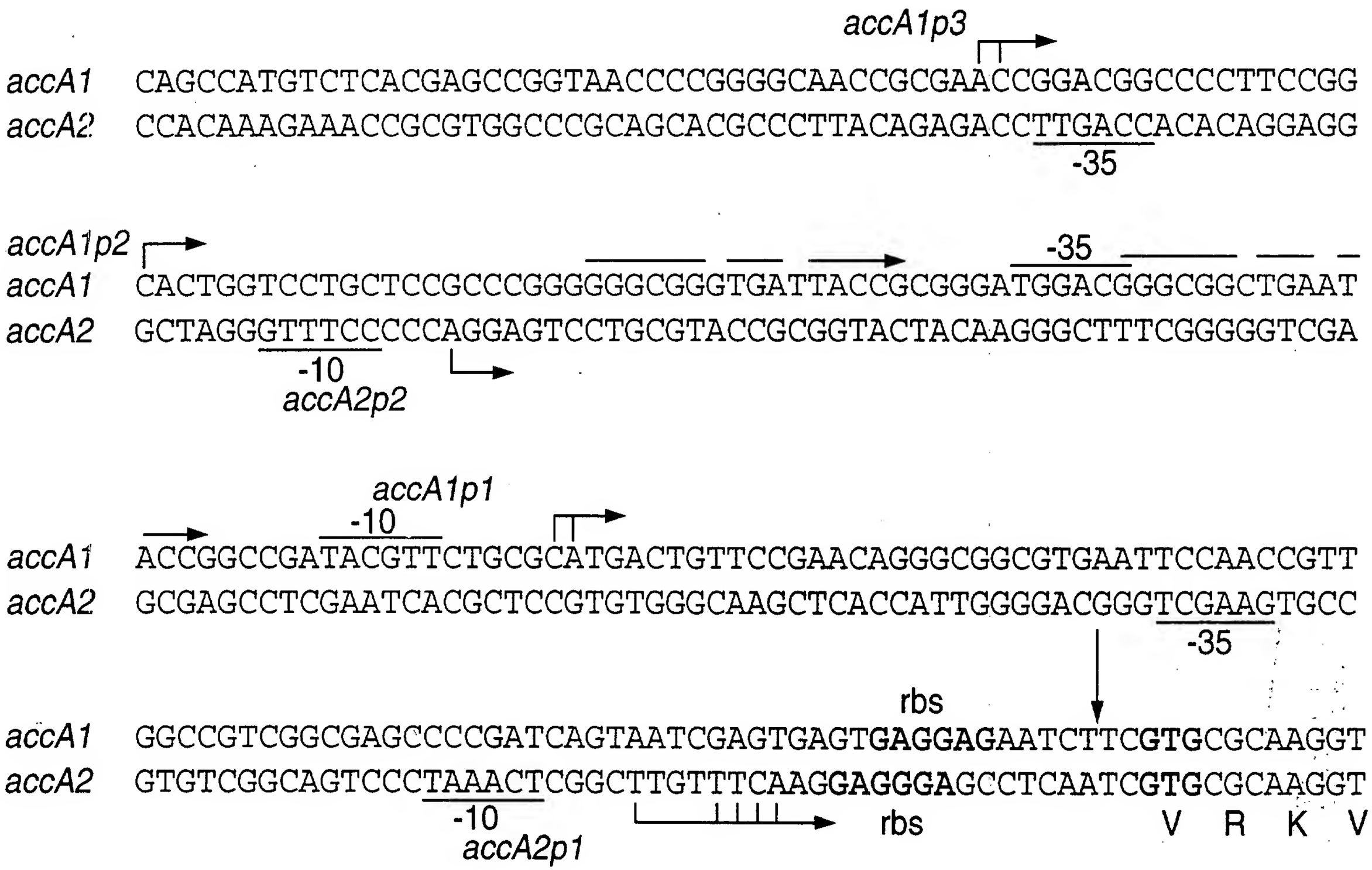


Fig.5C.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accA1p2
-35
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-10
accA2p2
accA1p1
-10
accA1 ACCGGCCGATACGTTCTGCGCATGACTGTTCCGAACAGGGCGGCGTGAATTCCAACCGTT
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rbs
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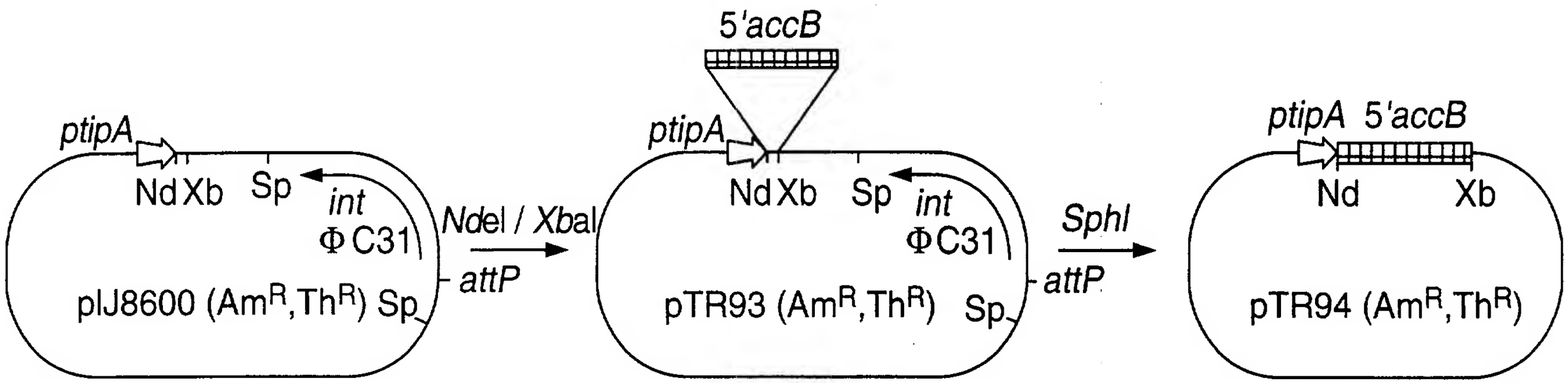
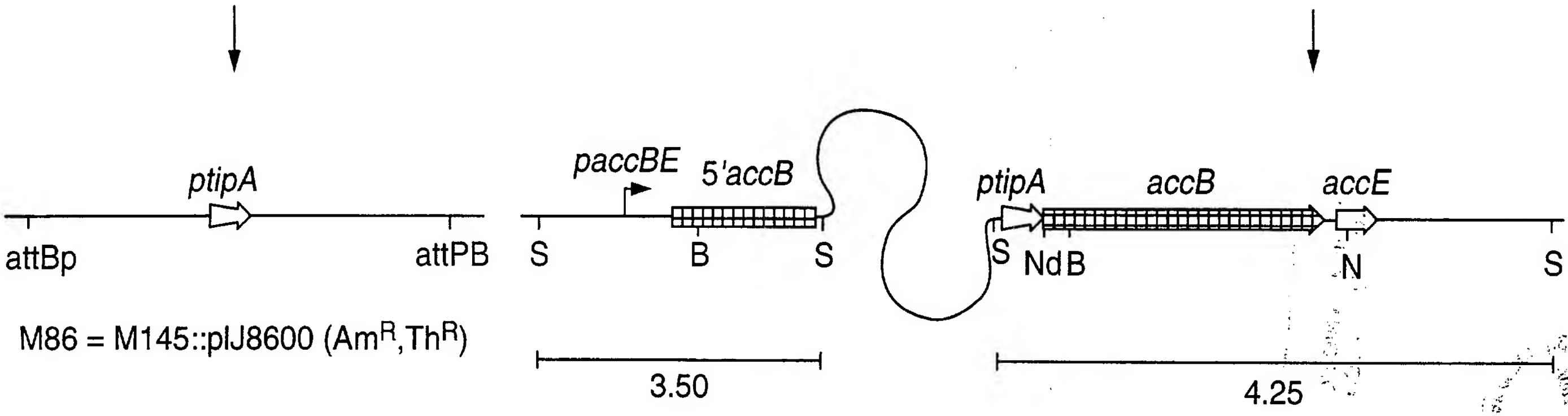
accA2p1
rbs
V R K V

Fig.6A.


ptipA
Nd Xb
Sp
int
ΦC31
pIJ8600 (Am^R,Th^R) Sp
attP
NdeI / XbaI
5'accB
ptipA
Nd Xb
Sp
int
ΦC31
pTR93 (Am^R,Th^R)
Sp
attP
SphI
ptipA 5'accB
Nd
Xb
pTR94 (Am^R,Th^R)


ptipA
attBp
attPB
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paccBE
5'accB
S
B
S
3.50
ptipA
accB
accE
S
NdB
N
S
4.25
M94 = M145::pTR94 (Am^R,Th^R)

EP 0 [illegible]

Fig.6B.

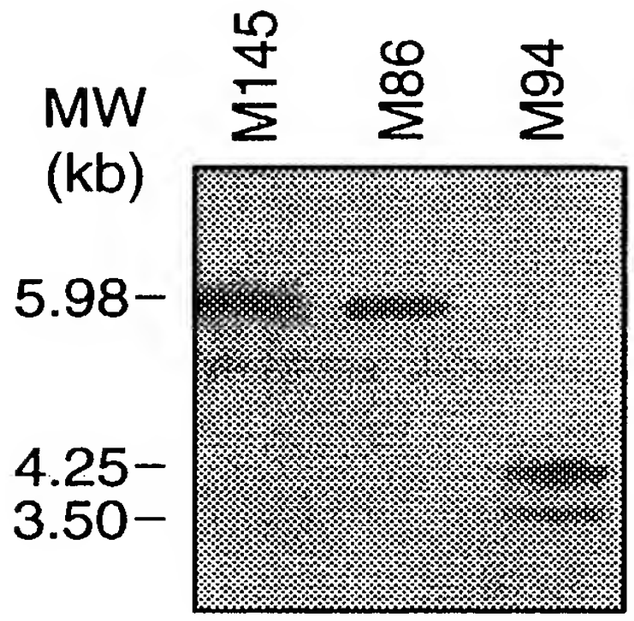

Fig.7A.

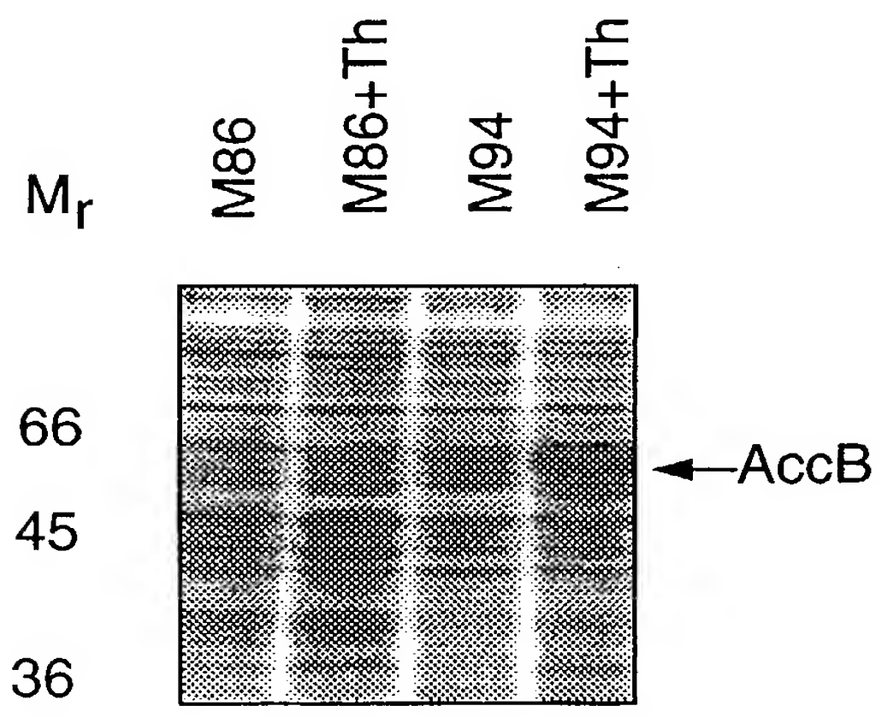

Fig.7B.

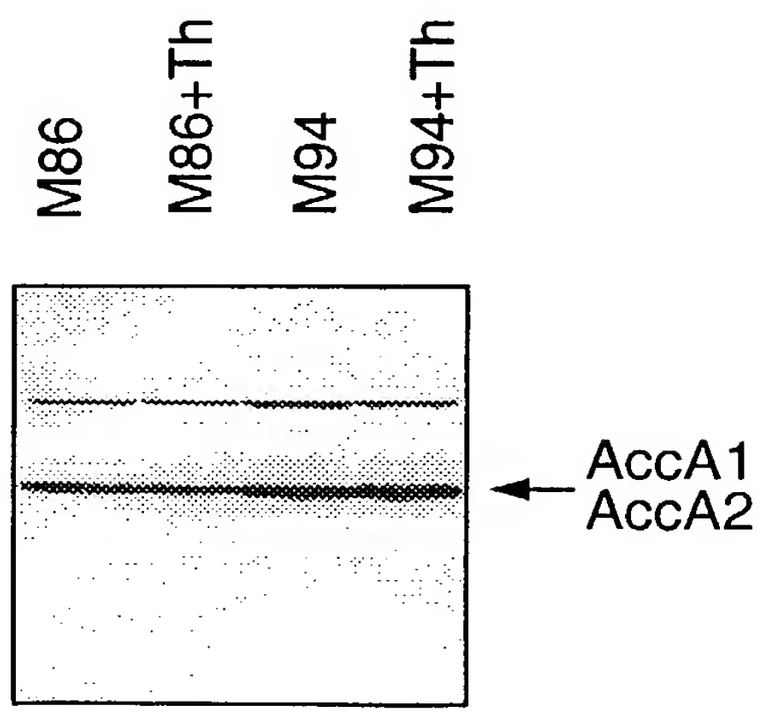

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Fig.8A.

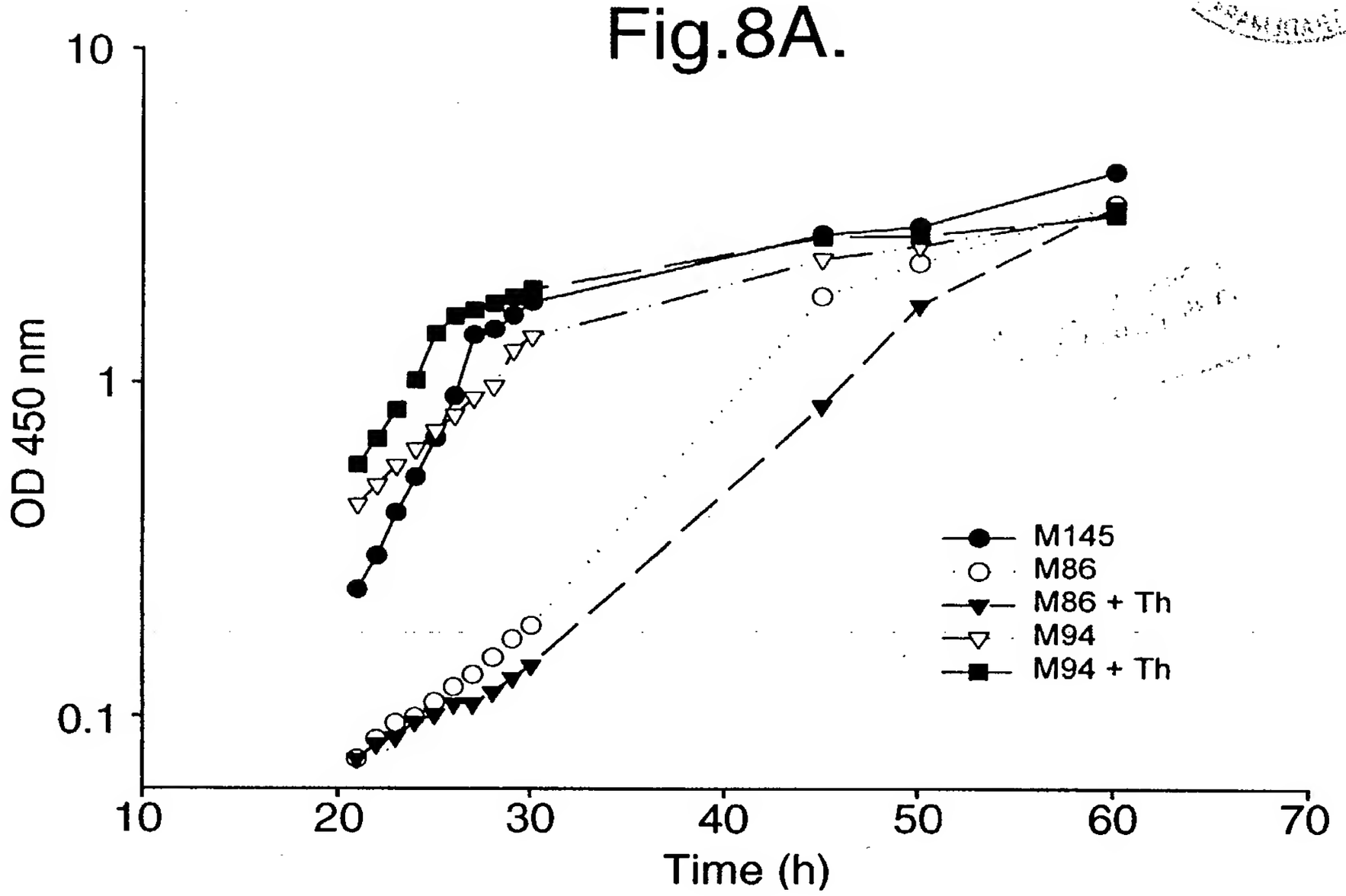


Fig.8B.

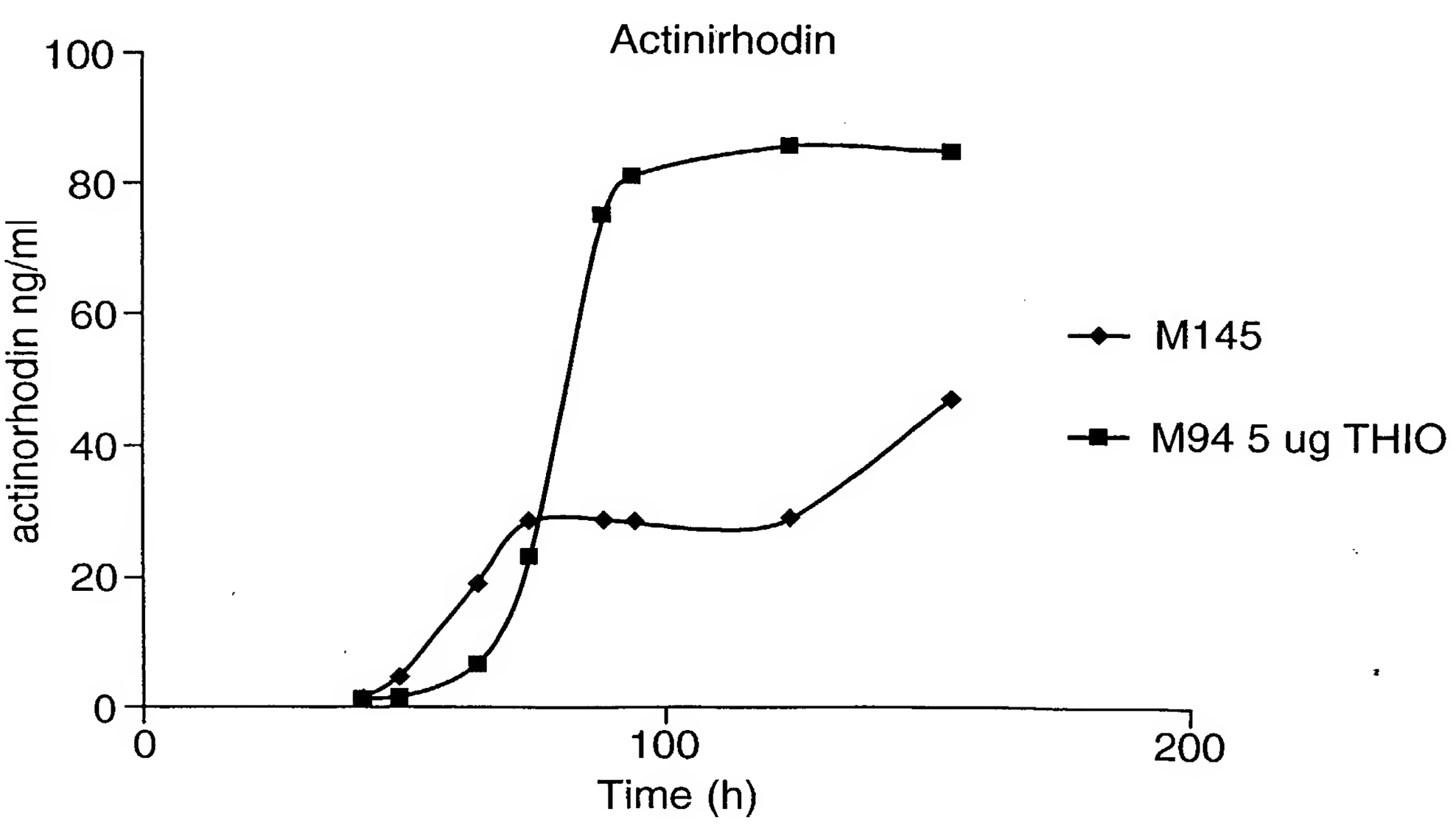
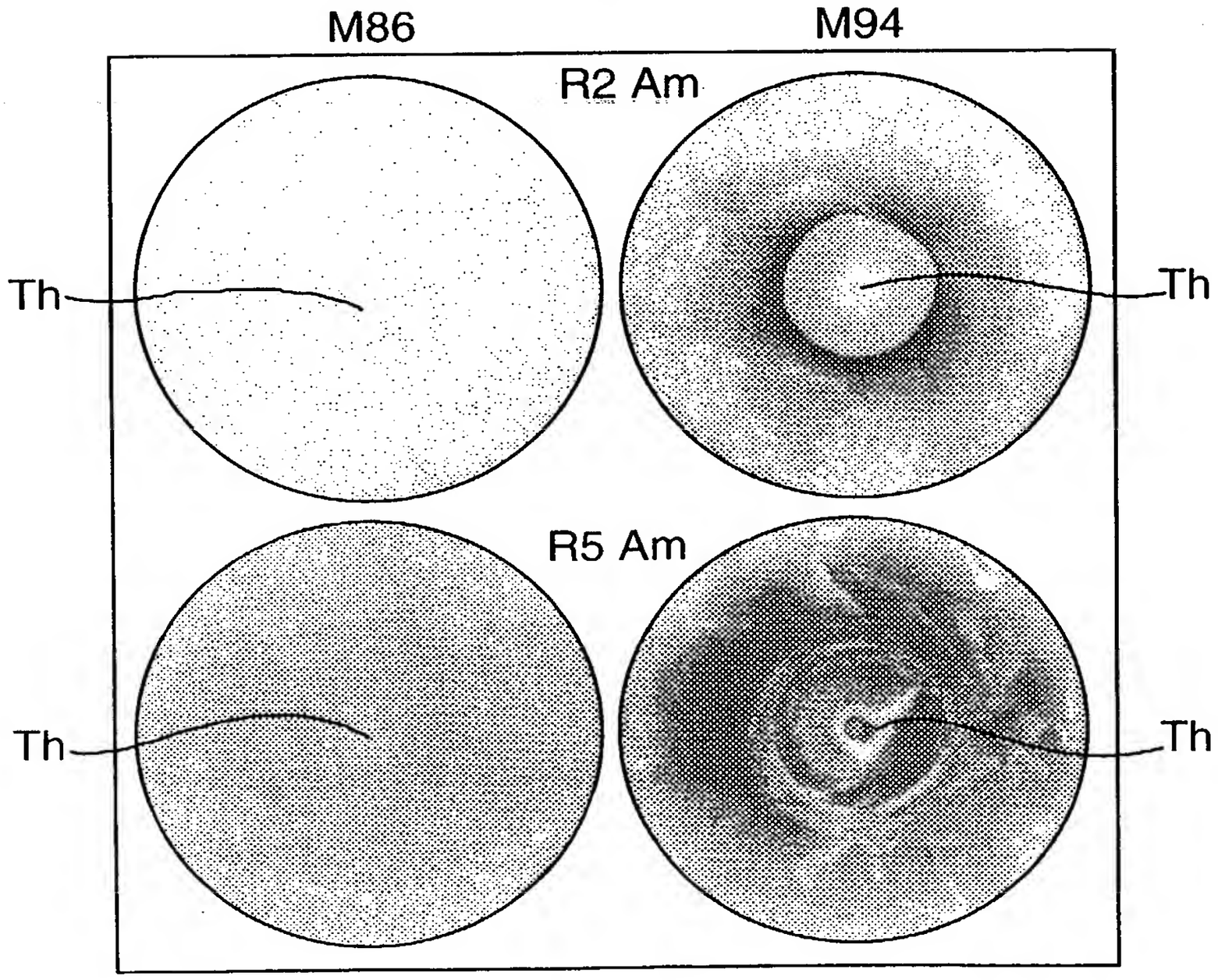


Fig.9.



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MAY 2 1 2003

Fig. 10

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AACAACCGGGAGAACCCGCCCCGCGCCGAGTCCTCCGACCCCGTGGACCGCCGCTCGGACACCCTC
CTCGACCTGGTCCCGGCGGACGGCAACCGCCCGTACGACATGACCAAGGTCATCGAGGAACTCGTC
GACGAGGGCGAGTACCTGGAGGTCCACGAGCGTTG**TCTAGA**GGT

Fig. 11

A. AccA1

VRKVLIANRGEIAVRVARACRDAGIASVAVYADPDRDALHVRAADEAFALGGDTPATSYLDIAKVL
KAARESGADAIHPGYGFLSENAEFAQAVLDAGLIWIGPPPHAIRDRGEKVAARHIAQRAGAPLVAG
TPDPVSGADEVVAFAKEHGLPIAIKAAFGGGGRGLKVARTLEEVPELYDSAVREAVAAFGRGECFV
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AGYGGAGTVEFLVGMDGTIFFLEVNTRLQVEHPVTEEVAGIDLVREMFRIADGEELGYDDPALRGH
SFEFRINGEDPGRGFLPAPGTVTLFDAPTGPGVRLDAGVESGSVIGPAWDSLLAKLIVTGRTRAEA
LQRAARALDEFTVEGMATAIPFHRTVVRDPAFAPELTGSTDPFTVHTRWIETEFVNEIKPFTTPAD
TETDEESGRETVVVEVGGKRLEVSLPSSLGMSLARTGLAAGARPKRRAAKKSGPAASGDTLASPMQ
GTIVKIAVEEGQEVQEGDLIVVLEAMKMEQPLNAHRSGTIKGLTAEVGASLTSGAAICEIKD

A. AccA2

VRKVLIANRGEIAVRVARACRDAGIASVAVYADPDRDALHVRAADEAFALGGDTPATSYLDIAKVL
KAARESGADAIHPGYGFLSENADFAQAVLDAGLIWIGPPPHAIRDRGEKVAARHIAQRAGAPLVAG
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LQRAARALDEFTVEGMATAIPFHRTVVRDPAFAPELTGSTDPFTVHTRWIETEFVNEIKPFTTPAD
TETDEESGRETVVVEVGGKRLEVSLPSSLGMSLARTGLAAGARPKRRAAKKSGPAASGDTLASPMQ
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1004561.0531102

Fig. 11 (cont)

B. *accA1*

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1004562 .052102

Fig. 11 (cont)

B. *accA2*

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10045612 .053102

Fig. 12

A. AccB

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PEAMRARMVKEYKSELMHPYYAAERGLVDDVIDPAETREVLITSLAMLHTKHADLPSRKHGNPPQ

B. *accB*

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TACCTGGAGGTCCACGAGCGTTGGGCCCGCAACATCATCTGCGCGCTGGCCCGTCTCGACGGGCGG
GTCGTGGGCATCGTCGCCAACCAGCCGCAGGCCCTGGCCGGTGTCCTGGACATCGAGGCGTCGGAG
AAGGCGGCCCGCTTCGTCCAGATGTGCGACGCCTTCAACATCCCGATCATCACTCTTCTGGACGTA
CCCGGCTTCCTGCCCGGCGTCGACCAGGAGCACGGCGGGATCATCCGCCACGGCGCCAAGCTGCTC
TACGCGTACTGCAACGCGACCGTGCCCCGGATCTCGCTGATCCTGCGCAAGGCGTACGGAGGTGCT
TACATCGTCATGGACAGCCAGTCCATCGGCGCCGACCTCACCTACGCCTGGCCGACCAACGAGATC
GCCGTCATGGGCGCGGAAGGTGCCGCGAACGTCATCTTCCGCCGGCAGATCGCCGACGCCGAGGAC
CCCGAGGCCATGCGGGCGCGCATGGTCAAGGAGTACAAGTCCGAGCTGATGCACCCCTACTACGCG
GCCGAACGCGGTCTGGTCGACGACGTCATCGACCCCGCCGAAACCCGCGAGGTGCTGATCACGTCC
CTGGCGATGCTCCACACCAAGCACGCCGACCTGCCCTCCCGCAAGCACGGCAACCCGCCGCAGTGA

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Fig. 13

A. AccE

MSPADIRVEKGHAEPEEVAAITALLLARAAARPAEIAPTHGGGRARAGWRRLEREPGFRAPHSWR

B. *accE*

ATGTCCCCTGCCGACATCCGCGTCGAGAAGGGCCACGCCGAGCCCGAGGAAGTCGCCGCC
ATCACGGCCCTCCTCCTGGCCCGCGCCGCCGCCCGCCCCGCCGAGATCGCGCCGACCCAC
GGCGGCGGCCGCGCCCGCGCCGGCTGGCGCCGCCTGGAACGCGAGCCGGGCTTCCGCGCC
CCGCACAGCTGGCGCTGA

Fig.14.

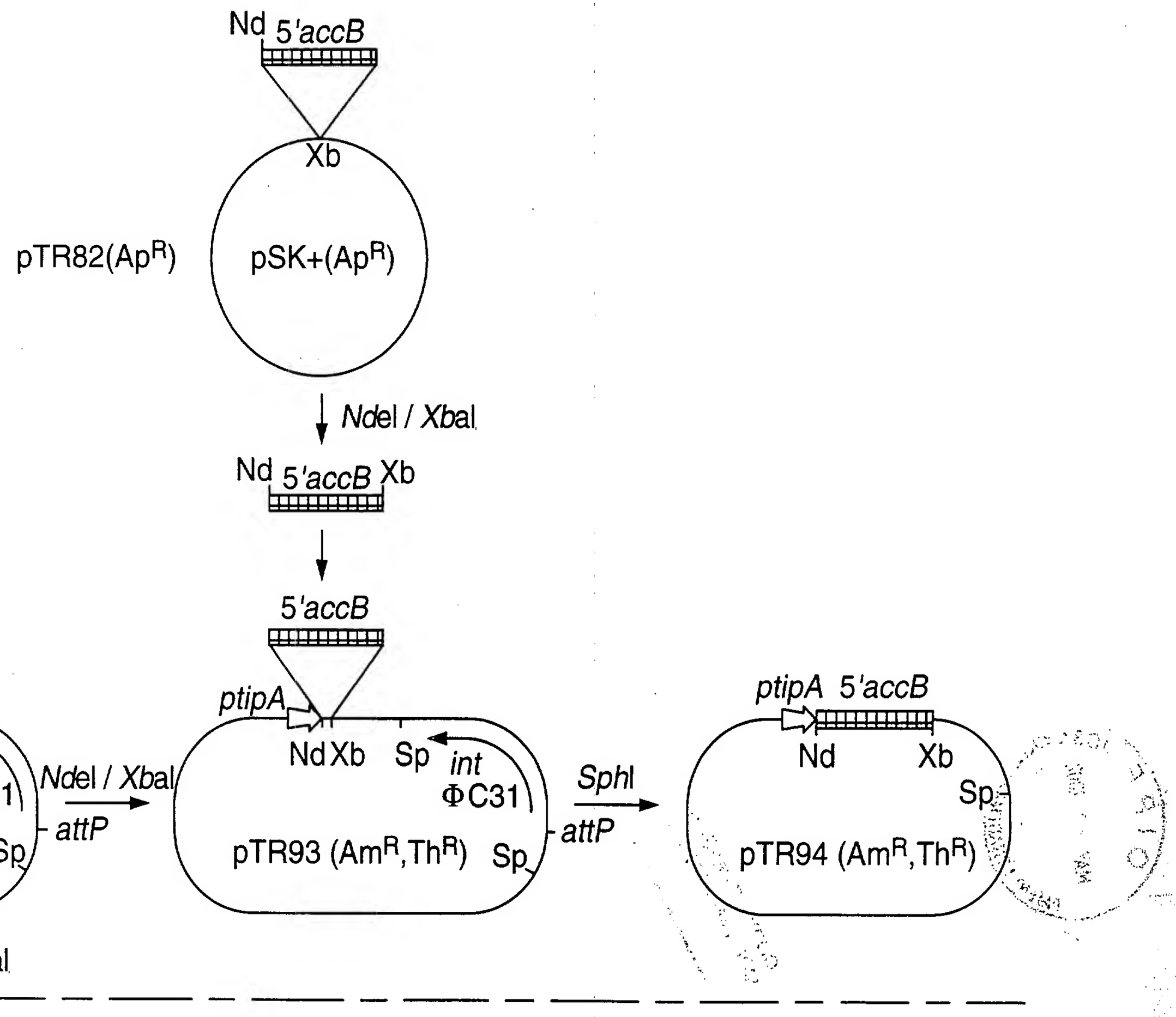
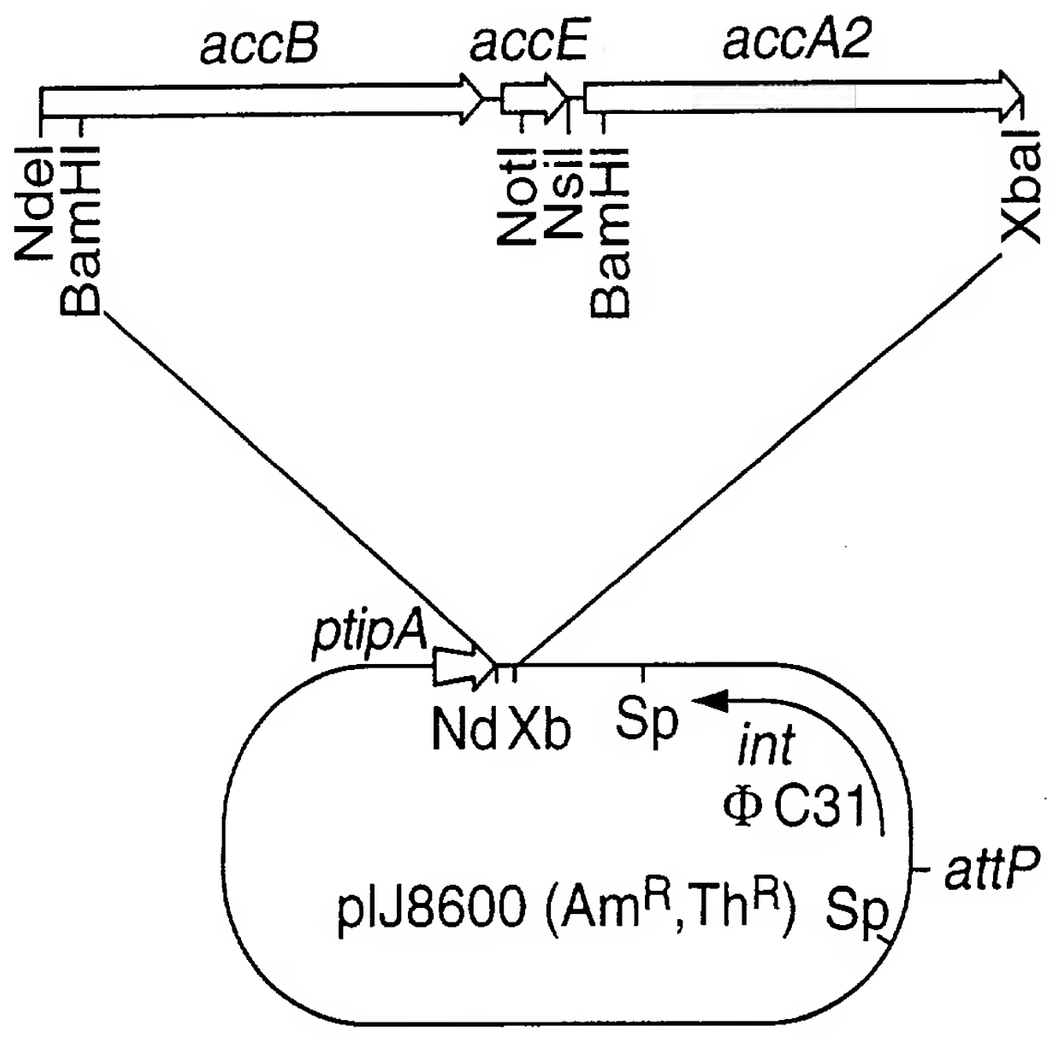
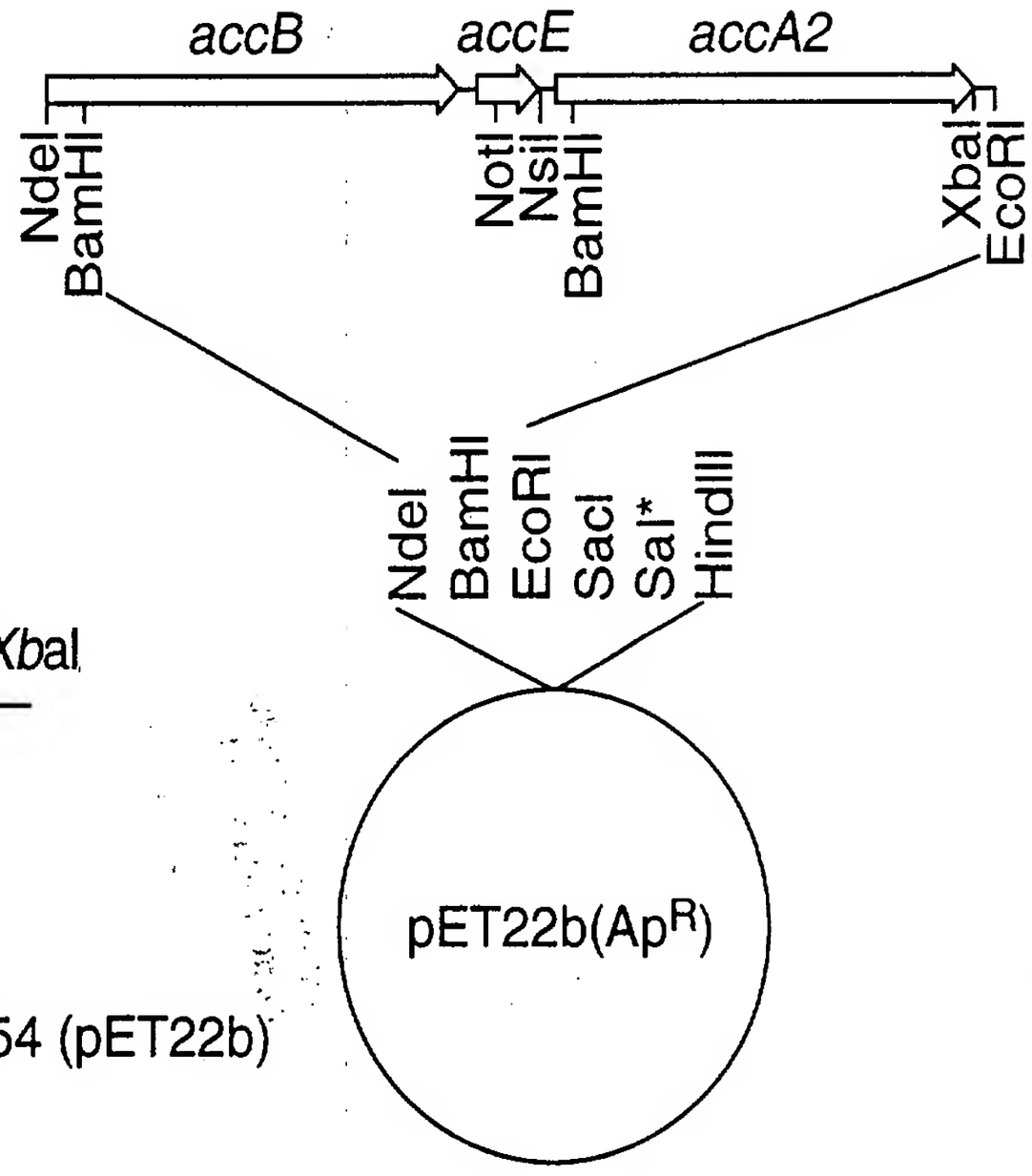

Nd 5'accB
Xb
pTR82(ApR)
pSK+(ApR)
NdeI / XbaI
Nd 5'accB Xb
5'accB
ptipA
Nd Xb Sp
int
ΦC31
pIJ8600 (AmR,ThR) Sp
attP
pTR93 (AmR,ThR) Sp
SphI
pTR94 (AmR,ThR)
Nd
Xb
Sp

Fig.14.Cont



pTR156 (pET22b)

*Nde*I / *Xba*I



pTR154 (pET22b)